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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,082	07/25/2003	Kevin V. Fliess	103580.00030/2003P00134	3514

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EXAMINER	
PATS, JUSTIN	

ART UNIT	PAPER NUMBER
3623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/628,082	FLIESS ET AL.	
	Examiner	Art Unit	
	JUSTIN M. PATS	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17,20 and 23-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17,20 and 23-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Notice to Applicant

1. The following is a Final office action. In response to Examiner's communication of 10/07/08, Applicant, on 1/30/09, amended claims 1, 5–17, and 20, 13, and 15. Applicant also cancelled claims 2, 5–10, 14, and 16–19 and added claims 20–23. Claims 1-17, 20 and 23-30 are pending in this application and have been rejected below. Priority claimed to provisional application 60/317698, dated 9/5/2001 is hereby deemed effective.

Response to Amendment

2. The rejection of claims 1–17 under 35 U.S.C. 101 is hereby removed in light of Applicant's amendments of 1/30/09.

Claim Objections

3. Claim 8 is objected to because of the following informalities: the phrase "at least one in the new . . ." should read "at least one *skill* in the new". Appropriate correction is required. For examination purposes, it will be assumed the limitation applies to at least one skill.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1–2, 4, 7, 11–12, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Embley et al., *Ontology-Based Extraction and Structuring of Information from Data-Rich Unstructured Documents*, In Proceedings of the Conference on Information and Knowledge Management (CIKM'98), Washington D.C., 1998, pg 1–8 [hereinafter Embley].

6. As per claim 1, Embley teaches a computer-implemented method for defining one or more roles for a project, the method comprising:

extracting, via a search engine, one or more key words from unstructured text (Abstract, "For each unstructured document of interest, we extract its constants and keywords"; pg. 3–4, "After invoking the parser, the main program invokes the constant/keyword recognizer and then the structured-text generator for each unstructured document. The recognizer applies each regular expression to the unstructured document."; pg. 5, "In our second case study we extracted information from computer jobs listed in the Los Angeles Times. . . . Our jobs-listing ontology included 120 regular-expression components. The ontology in Figure 6 declares the structure information about the degree needed, the skills needed, and how to contact someone about the job.");

comparing *potential* key words against a skills taxonomy and generating a skills list based on the comparison (pg. 5, "Features for car ads and skills for job ads are unbounded. We limited features to actual physical features of cars; we limited skills to computer languages, tools, and systems. Thus, for example, we eliminated "Government Surplus" and "Runs perfect" as features of cars and "works well with others" and "willing to relocate" as job skills."; pg. 5, "We used the tuning set to determine which object and relationship sets would be in the ontology and what regular expressions would recognize constants and keywords. We refined the ontology until it described information in the tuning set as completely as possible. In generating regular expressions, we did not limit ourselves to patterns found in the tuning set. We used our own experience to generalize some of the patterns, but we did not attempt to be comprehensive—just to be as accurate as possible on the tuning set. We developed and tuned our application ontologies using . . . 50 job ads. We then applied these ontologies to the test sets and obtained the results in . . . Table 2 (computer jobs)."); and

comparing the skills list to a predefined role template wherein: the predefined role template includes skills required to perform a predefined role (pg. 5, "Unbounded sets, such as car features and job skills, generally dominate overall precision and recall numbers. . . . [F]or jobs, if we had cataloged a larger set of skills, including skills we missed such as "CICS", "DB2", and "BAL", we would have achieved near 100% recall.")

Regarding the generation, via a role generator, of a new role template based on the comparison of the of the skills list and the predefined role template—Embley at least teaches the ready capability to generate a new role template based on this comparison as it explicitly suggests the expansion of the skill set in order to achieve a more accurate recall percentage. See

id. Regarding the comparison of *extracted* key words against the skills taxonomy in its generation of a skills list, Embley is at least readily capable of performing this limitation (*see* Table 2, which shows the number of skills facts extracted from the source by keyword search compared with the actual number of facts contained in the source. Embley then uses this less than optimal recall ratio to hypothesize the creation of a new expanded skills list (this also could be a new role template, as a role template comprises skills required to perform a predefined role, as claimed by Applicant), containing CICS, DB2 and BAL as further skills). However, Embley does not explicitly apply this technique to its keyword extraction method. Still, it would have been obvious to apply a known technique of *extracted* keyword comparison to a known element, namely a skills taxonomy, to achieve a predictable result and result in an improved system. It would have been obvious to modify Embley to explicitly include the above features for the benefit of an improved system comprising a more accurate extraction of job skills.

Embley teaches the functionality and structure necessary for (1) storing on a storage medium and adding data to a database, (Fig. 1, filtered and structure document (populated SQL database)). Embley further teaches the use of processors and the use of the internet, aka a communications network (pg. 7, "Front-end page processors are needed to prepare documents. For our case studies we searched theWeb, found documents of interest, saved the HTML pages to a file, identified record boundaries within the HTML text, and processed the files to insert record separators and remove HTML markers."), display in a user interface on a computing device (pg. 7, "Many user-friendly interfaces have already been built over standard database interfaces, so this is certainly feasible."), and wherein a programmable machine is used (pg. 3, "A main program invokes the parser, recognizer, and generator in the proper sequence.").

Embley does not explicitly teach wherein the storage medium is network accessible, and the user interface is graphical and displayable. However, Official Notice is taken that these limitations are all old and well known elements and capabilities of a computer system and network. It would have been obvious to one having ordinary skill in the art at the time of the invention to include these features for the benefit of providing a user friendly environment that facilitates and expedites the analysis of a company's business processes.

7. Claim 2 recites limitations that stand rejected via the art citations and rationale applied to claim 1 as discussed above.

8. Claim 4 recites limitations that stand rejected via the art citations and rationale applied to claim 1 as discussed above.

9. Claim 7 recites limitations that stand rejected via the art citations and rationale applied to claim 1 as discussed above.

10. Claims 11–12, and 15 recite limitations that stand rejected via the art citations and rationale applied to claims 1–2 and 4 as discussed above.

11. Claims 3, 5–6, 8–10, 13–14, 16–17, 20, 23–30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Embley, as applied to claim 1 above, in view of Haq et al., U.S. Pat. No. 6,275,812 [hereinafter Haq].

12. As per claim 3, Embley teaches wherein the skills list includes a plurality of skills (*see* discussion *supra* ¶ 6), but does not explicitly teach ranking each of the plurality of skills based on a relevance to the project and filtering skills that do not meet a predefined threshold. Haq, in the analogous art of resource management, teaches these limitations (col. 5, lines 27-49, col. 6, lines 26-42).

It would have been obvious to one of ordinary skill in the art to modify Embley to include the teaching of Haq because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

13. As per claim 5, Embley does not explicitly teach wherein the predefined role is accessed from an archive of project roles. However, Haq teaches this (col. 5, line 63-col. 6, line 4, wherein the manager looks up available templates in the database and picking the one that closely matches the job function at hand, or rather a manager accessing predefined roles from an archive of project roles).

It would have been obvious to one of ordinary skill in the art to modify Embley to

include the teaching of Haq because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

14. As per claim 6, Embley does not explicitly teach storing the new role template in the archive of project roles. However, Haq teaches this (col. 5, line 63-col. 6, line 4 teaches the manager looking up available templates in the database and picking the one that closely matches the job function at hand, or rather the template is being user for a job function (i.e. a role template) and which are found together in a database (i.e. an archive of project roles)).

It would have been obvious to one of ordinary skill in the art to modify Embley to include the teaching of Haq because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

15. As per claim 8, Embley does not explicitly teach wherein at least one skill in the new role template is optional for the role. However, Haq teaches this (col. 4, lines 5-24 teach weighting skills where the weights indicate the relevant importance of each skill in performing all the job functions associated with a specialty in that technology, where any finite weight including 0 can be assigned to a skill, 0 meaning the skill is not required of a particular function which a non-

zero number associates a relative importance level to the skill (i.e. a skill with a 0 is optional, any other skill with some relevant importance is required to some degree)).

It would have been obvious to one of ordinary skill in the art to modify Embley to include the teaching of Haq because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

16. As per claim 9, Embley does not explicitly teach matching a specific individual with the new role template. However, Haq teaches this (col. 5, line 24-col. 6, line 17 teaches a skill template, or a role template, where an assessment is made of all the employees in the pool or resources for their suitability in performing various roles in the project in order for the project to be staffed by the most appropriate employees. Two metrics are used to assess the suitability of an employee for a given job function, or rather each employee is assessed to determine if they match the role template. Further, col. 7, lines 24-37 teach the employee that best matches the template is deployed on a project).

It would have been obvious to one of ordinary skill in the art to modify Embley to include the teaching of Haq because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

17. Claims 10, 13, 14, and 16-17 recites limitations that stand rejected via the art citations and rationale applied to claims 8, 3, 3, and 5–6, respectively, as discussed above.

18. Claim 20 predominantly recites limitations that stand rejected via the art citations and rationale applied to claim 1 as discussed above. The only limitation not covered is an archive of at least one project role, which is taught by Haq as discussed above (*see* discussion *supra* ¶¶ 13–14).

It would have been obvious to one of ordinary skill in the art to modify Embley to include the teaching of Haq because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

19. As per claim 23, Embley does not explicitly teach a portal for accessing the one or more role templates. However, Haq teaches this (col. 5, lines 58–60, "Both the managers and the employees have access to these skills templates because these form the basis for career progression and deployment on tasks."; col. 10, lines 36–38, "The small boxes around the database indicate employees (51) and managers (52) within the organization that can access the database (50).")

It would have been obvious to one of ordinary skill in the art to modify Embley to include the teaching of Haq because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of

the combination were predictable.

20. Claim 24 recites limitations that stand rejected via the art citations and rationale applied to claims 20 and 3 as discussed above.

21. As per claim 25, Embley teaches wherein the role generator operates in a composite application environment (Embley, Fig. 1).

22. Claim 26 recites limitations that stand rejected via the art citations and rationale applied to claim 25 as discussed above.

23. As per claim 27, Embley teaches wherein the role generator operates in a business application (pg. 1, showing the use of the system for business purposes, "As case studies to test these ideas for this paper, we consider newspaper advertisements for automobiles and newspaper job listings for computer-related jobs. Both automobile ads and job listings are data rich and narrow in ontological breadth. Automobile ads typically include constants for and information about year, make, model, asking price, mileage, features, and contact phone numbers. Computer job listings include degree required, needed skills, and contact information. Other application areas whose documents have similar characteristics include travel, stocks, financial transactions, scheduling for meetings, sports information, genealogy, medical research, product information, and many others.")

24. As per claim 28, Embley does not explicitly teach wherein the business application is a project management application. Haq teaches this (*see e.g.*, col. 7, lines 23–38, Deployment on Project).

It would have been obvious to one of ordinary skill in the art to modify Embley to include the teaching of Haq because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

25. Claim 29 recites limitations that stand rejected via the art citations and rationale applied to claim 27 as discussed above.

26. As per claim 30, neither Embley nor Haq explicitly teaches wherein the business application is integrated within a composite application environment. However, both the business application and the composite application environment are known elements as discussed above. Integrating known elements is considered the equivalent of making parts or structures integral and is not considered patentably distinguishable from the cited prior art. See *In re Larson*, 144 USPQ 347, 349; 339 US 965 (CCPA 1965); *In re Wolfe*, 116 USPQ 443, 444; 251 F2d 854 (CCPA 1958) ("it would seem scarcely necessary to point out that merely making a two-piece handle in one piece is not patentable invention because it is an obvious thing to do if deemed desirable."). As such, integrating the business application within the composite application environment would provide a predictable result and result in an improved system that

would have been obvious to one having ordinary skill in the art at the time of the invention because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Response to Arguments

27. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN M. PATS whose telephone number is (571)270-1363. The examiner can normally be reached on Monday through Friday, 8:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on 571-272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Justin M Pats/
Examiner, Art Unit 3623

/Andre Boyce/
Primary Examiner, Art Unit 3623